

REMARKS

The Office Action dated October 1, 2003 has been received and reviewed by the applicant. Claims 1- 40 are in the application. Claims 1-40 stand rejected. Original claims 1-40 are canceled. New claim 41-51 are now presented.

Claims 19 and 38 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. It is noted that these claims are now canceled so this rejection is now moot.

Claim 40 stands rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. It is also noted that these claims are now canceled.

Claims 1-3, 6-10, 13, 20-22, 25-29, 32, 39, 40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Daly et al., U.S. Patent No. 5,859,920 ("Daly") and Rhoads, U.S. Patent No. 6,567,533 ("Rhoads-533"). The entirety of the rejection is not repeated herein for brevity. However, in Rhoads, the intention of modifying the dispersed image is to minimize its perceptibility. This fact is explicitly pointed out as illustrated in column 4, lines 13 - 21:

the amplitude or power of this added signal is determined by the aesthetic and informational considerations of each and every application isn't the present methodology. For instance, nonprofessional video can stand to a hire embedded signal level *without becoming noticeable* to the average in fact, while high precision audio may only be able to except a relatively small signal lest the human ear perceive an objectable increase in "hiss." (emphasis added)

This is also pointed out and Daly column 7, lines 63 through column 8, line 2 which states:

The file step 56 in this process is to scale the amplitude of tile frequency dispersed an image so that when added data so that when added to the source image it is an *unnoticeable* to the average in view. The scaling value depends on a number of parameters of the image such as baseline noise level and displayed dynamic range. We have determined the scaling values for 8-bit images on a series of film types, having quantified their inherent noise level, or grain (see Table 1). (Emphasis added)

The claimed invention teaches the contrary of permitting the allowance and desirability of visibility while achieving an increased benefit, robustness. It is well known the art of photography and filmmaking that film grain noise is often a desired attribute. Professional photographers and directors often pay a premium for a particular type of film grain look when planning their film purchases. The claimed invention provides a means for a particular visible film grain look while simultaneously providing a stronger security attribute than is available from known invisible watermarking technology. The claimed invention increases the robustness of the art by allowing visibility and thus enhanced watermark survivability under rotation, scale, projection (movie theaters) and repeat digitization, compression, printing, scanning and the like.

To facilitate, support for each claim is noted as follows:

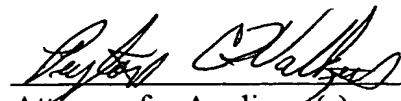
- a) claim 41: page 8, lines 23-25; page 13, lines 29-30 and page 10, lines 7-9;
- b) claim 42: page 8, lines 19-21;
- c) claim 43: page 12, lines 24-27;
- d) claim 44: page 8, lines 19-21;
- e) claim 45, lines 6 – 30;
- f) claim 46: page 8, lines 19- 21;
- g) claim 47: page 8, lines 25 – page 9, line 4;
- h) claim 48: page 5, lines 11 – 20; and page 8, lines 23 – 25;
- i) claim 49: page 8, lines 8 – 15;
- j) claim 50: page 14, line 20 – page 15, line 4; and
- k) claim 51: page 14, lines 24 – 28;

Summary

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

For the reasons set forth above, it is believed that the application is in condition for allowance. Accordingly, reconsideration and favorable action are respectfully solicited.

Respectfully submitted,


Attorney for Applicant(s)
Registration No. 36,390

Peyton C. Watkins/lam
Rochester, NY 14650
Telephone: 585-477-8282
Facsimile: 585-477-4646